

ABSTRACT

Methods for underfilling a gap between a component and a component carrier, such as a die joined to a substrate by solder electrical interconnections, with an underfill material. One or more chambers or

5 passageways are provided in either the component carrier at a location beneath the intended position of the component or in the component itself. The component and component carrier are heated and a volume of underfill material is introduced into each passageway. After introduction, the underfill material flows or moves to fill the gap between the component and the component carrier. A fillet may be

10 optionally formed by adjusting the temperature during the underfilling operation.